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FIRST NAMED INVENTOR APPLICATION NO. FILING DATE ATTORNEY DOCKET NO. 09/4 1,749 12/23/99 HILLMAN J PF-0519-1DIV **EXAMINER** HM12/0907 LEGAL DEPARTMENT HARRIS INCYTE GENOMICS INC PAPER NUMBER ART UNIT 3160 PORTER DRIVE PALO ALTO CA 94304 1642 DATE MAILED: 09/07/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. **09/471,749**

Applicant

Hillman et al.

Examiner

Alana M. Harris, Ph. D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 1) Responsive to communication(s) filed on <u>March</u> 22, 2001. 2a) This action is **FINAL**. 2b) X This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quay/835 C.D. 11; 453 O.G. 213. **Disposition of Claims** 4) X Claim(s) 3, 6, 7, 9-12, 19-25, 27-30, and 41-45 is/are pending in the applica 4a) Of the above, claim(s) 3, 6, 7, 9-12, 19, 20, 23-25, 29, 30, 41, and 42 is/are withdrawn from considera 5) Claim(s) is/are allowed. 6) X Claim(s) 21, 22, 27, 28, and 43-45 is/are rejected. is/are objected to. 8) Claims ______ are subject to restriction and/or election requirem Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on ______ is/are objected to by the Examiner. 11) The proposed drawing correction filed on ______ is: a pproved b disapproved. 12) The oath or declaration is objected to by the Examiner. Priority under 35 U.S.C. § 119 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). a) All b) Some* c) None of: 1. \square Certified copies of the priority documents have been received. 2.
Certified copies of the priority documents have been received in Application No. 3.

Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). Attachment(s) 15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152) 17) X Information Disclosure Statement(s) (PTO-1449) Paper No(s). 20) Other:

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DETAILED ACTION

Response to Amendment

- 1. The action mailed June 19, 2001 has been vacated and a new office action in response to Paper number 10, filed March 22, 2001 is set forth.
- 2. Claims 3, 6, 7, 9-12, 19-25, 27-30 and 41-45 are pending.

Claims 43-45 have been added.

Claims 21 and 22 have been amended.

Claims 26 and 31-40 have been canceled.

Claims 3, 6, 7, 9-12, 19-20, 23-25, 29, 30, 41 and 42, drawn to non-elected inventions are withdrawn from examination.

Claims 21, 22, 27, 28 and 43-45 are examined on the merits.

Information Disclosure Statement

- 3. All of the documents listed on Applicants' IDS (Paper No. 2) have been reviewed and considered.
- 4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Withdrawn Rejections

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Claim Rejections - 35 U.S.C. § 112

5. The rejection of claims 21, 22, 27 and 28 under 35 U.S.C. 112, first paragraph in relation to a specific and substantial asserted utility or a well established utility is withdrawn.

Claim Rejections - 35 U.S.C. § 101

6. The rejection of claims 21, 22, 27 and 28 under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility is withdrawn in view of Applicants' arguments.

Claim Rejections - 35 U.S.C. § 102

- 7. The rejection of claims 21 and 27 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent #5,919,660 (filed June 24, 1997) is withdrawn in view of Applicants' amendment to claim 21.
- 8. The rejection of claim 21 under 35 U.S.C. 102(b) as being anticipated Accession #A55302 (July 8, 1995) or Gabig et al. (J. Biol. Chem. 269:29515-29519, 1994) is withdrawn in view of Applicants' amendment to the claim.

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Claim Rejections - 35 U.S.C. § 103

9. The rejection of claims 21 and 27 under 35 U.S.C. 103(a) as being unpatentable over Accession # A55302 (July 8, 1995) or Gabig et al. (J. Biol. Chem. 269:29515-29519, 1994), in view of Harlow and Lane (Antibodies, A Laboratory Manual, Cold Spring Harbor Laboratory, 1988) is withdrawn in view of Applicants' amendment to claim 21.

New Grounds of Rejection

Claim Rejections - 35 U.S.C. § 112

10. Claims 21, 27, 28 and 43-45 are rejected under 35 U.S.C. 112, first paragraph, because the specification, does not reasonably provide enablement commensurate with the scope of the claimed invention. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

Claim 21 is broadly drawn to a biologically-active fragment, as well as a immunogenic fragment of SEQ. ID. NO:3 or SEQ. ID. NO:5 comprising at least 30 contiguous amino acid residues. The scope of the claims is not commensurate with the enablement provided by the disclosure with regard to the number of proteins broadly encompassed by the claims and the claims broadly encompass a significant number of inoperative species. Since the amino acid sequence of a protein determines its structural and functional properties, knowledge of which sequences of the amino acids would retain similar biological activity and immunogenicity the same as Applicants' is required. The disclosure does not provide any information disclosing what

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fragments of SEQ ID NO:3 or SEQ ID NO:5 should be regarded as biologically active or immunogenic. The specification exemplifies no examples of the effective use of the sequences consisting of SEQ ID NO:3 or SEQ ID NO:5, nor fragments of these polypeptides as a pharmacological agent and no such uses are art known. Therefore, due to the unpredictability of therapeutics and the absence of any evidence concerning the effectiveness of the claimed pharmaceutical composition as a pharmacological agent, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected,

Applicants have not provided sufficient guidance to enable one of ordinary skill in the art for the intended use of the claimed proteins as a therapeutic agent. The scope of the claims must bear a reasonable correlation with the scope of enablement. In view of the lack of guidance, lack of examples, and lack of predictability associated with regard to using the myriad of contiguous amino acid residues encompassed in the scope of the claims, one skilled in the art would be forced into undue experimentation in order to practice the broadly claimed invention.

Maintained Rejections

Claim Rejections - 35 U.S.C. § 112

11. The rejection of claims 21, 22, 27, 28 and newly added claims 43-45 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention is maintained.

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Applicants argue that "while identifying a polynucleotide sequence, and the polypeptide

encoded by the polynucleotide sequence, was a major undertaking at one time...sequencing and

sequence assembly have greatly simplified the process." While the Examiner concurs with this

Applicants' have yet to identify what amino acid substitutions, deletions and insertions would be

allowed that would yield variant with at least 90% amino acid sequence identity to SEQ Id NO:3

and SEQ ID NO:5. For these reasons, as well as for the rejection are of record in paper no.8,

mailed June 20, 2000 the rejection is maintained.

12. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Alana M. Harris whose telephone number is (703)306-5880. The examiner

can normally be reached on Monday through Friday from 6:30 am to 4:00 pm, with alternate

Fridays off. A message may be left on the examiner's voice mail service. If attempts to reach the

examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be

reached on (703)308-3995. Any inquiry of a general nature or relating to the status of this

application or proceeding should be directed to the Group receptionist whose telephone number is

(703)308-0196.

Alana M. Harris, Ph.D. Patent Examiner, Group 1642 July 30, 2001 ANTHUM'S C. COPVIN SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 1600